Page 11 Dkt: 884.B57US1

Title: ROAMING APPARATUS, SYSTEMS, AND METHODS WITH A PLURALITY OF RECEIVERS COUPLED TO A FIRST FREQUENCY REFERENCE TO COMMUNICATE WITH A FIRST STATION AND SELECTIVELY COUPLING ONE RECEIVER

TO A SECOND FREQUENCY REFERENCE TO COMMUNICATE WITH A SECOND STATION (as amended)

REMARKS

This responds to the Office Action mailed on July 18, 2007.

Claims 2, 5, 7, 9, 14, and 16 have been canceled by way of this amendment. Claims 1, 3, 6, 8, 13, 17, and 20 have been amended. No claims are added. Thus, claims 1, 3, 4, 6, 8, 10-13, 15, and 17-23 are now pending.

For the convenience of the Examiner, Applicant's remarks concerning the claims will be presented in the same order in which the Examiner presented them in the Office Action.

Objection to the Title

The Examiner objected to the title of the application, asserting it was not descriptive and requiring a new title. Accordingly, the title has been amended.

Amendments to Claims 1, 3, 6, 8, 13, 17, and 20

Claims 1, 3, 6, 8, 13, 17, and 20 have been amended. No new matter has been introduced.

Independent claims 1 and 8 have been amended by inserting "wherein the plurality of receivers comprises at least three receivers", by deleting "and", and by inserting "and handing off communications with the plurality of receivers from the first station to the second station after determining that a quality of service provided by the second station is greater than a quality of service provided by the first station, wherein the plurality of receivers are configured to operate as a multiple-input multiple-output system, and wherein selectively coupling one of the plurality of receivers to the second frequency reference further includes decoupling the one of the plurality of receivers from operating as a part of the multiple-input multiple-output system, while continuing to operate at least two of the plurality of receivers as a multiple-input multiple-output system; coupling the one of the plurality of receivers to operate as a search receiver independent from the multiple-input multiple-output system; the search receiver using a new reference frequency different from the first frequency reference; and the search receiver communicating with the second station using the new reference frequency". Support for this

Title: ROAMING APPARATUS, SYSTEMS, AND METHODS WITH A PLURALITY OF RECEIVERS COUPLED TO A FIRST FREQUENCY REFERENCE TO COMMUNICATE WITH A FIRST STATION AND SELECTIVELY COUPLING ONE RECEIVER TO A SECOND FREQUENCY REFERENCE TO COMMUNICATE WITH A SECOND STATION (as amended)

language may be found, for example, in claims 2, 5, 7, and 9 of the original disclosure, and in FIGs 2 and 3 and the corresponding written description.

Claim 3 has been amended to depend from claim 1.

Claim 6 has been amended by inserting the phrase "and handing off communications with at least two of the plurality of receivers, while such two receivers are configured to operate as a multiple-input multiple-output system, from the second station to the third station after determining that a quality of service provided by the third station is greater than a quality of service provided by the second station". Support for this language may be found, for example, in claims 2 and 5 of the original disclosure, and in FIGs 2 and 3 and the corresponding written description.

Independent claims 13 and 20 have been amended by inserting the phrase "wherein the plurality of receivers comprises at least three receivers, at least two of which are to operate as part of a multiple-input multiple-output system; a circuit to decouple one of the plurality of receivers from operating as a part of the multiple-input multiple-output system, while at least two of the plurality of receivers continue to operate as the multiple-input multiple-output system; a circuit to couple the one of the plurality of receivers to operate as a search receiver independent from the multiple-input multiple-output system, the search receiver to use a new reference frequency different from the first frequency reference, and the search receiver to communicate with a second station using the new reference frequency; a determination module to compare a quality of service provided by the first and second stations; and a circuit, responsive to the determination module, to hand off communications with the plurality of receivers from the first station to the second station if the quality of service provided by the second station is greater than the quality of service provided by the first station", and by deleting "wherein at least one of the plurality of receivers can be selectively coupled to the first frequency reference or to a second frequency reference to communicate with a second station using a signal path not included in the plurality of signal paths". Support for this language may be found, for example, in claims 14 and 16 of the original disclosure, and in FIGs 2 and 3 and the corresponding written description.

Claim 17 has been amended to depend from claim 13.

Filing Date: December 2, 2003

Title: ROAMING APPARATUS, SYSTEMS, AND METHODS WITH A PLURALITY OF RECEIVERS COUPLED TO A FIRST FREQUENCY REFERENCE TO COMMUNICATE WITH A FIRST STATION AND SELECTIVELY COUPLING ONE RECEIVER TO A SECOND FREQUENCY REFERENCE TO COMMUNICATE WITH A SECOND STATION (as amended)

Rejection of Claims 1-6, 8, 9, 11-14, 16-18, and 20-23 under 35 U.S.C. §102(e) as Anticipated by Kuffner

Claims 1-6, 8, 9, 11-14, 16-18, and 20-23 were rejected under 35 U.S.C. §102(e) as being anticipated by Kuffner (U.S. 6,954,446). Applicant does not admit that Kuffner is prior art and reserves the right to swear behind Kuffner as provided for under 37 C.F.R. §1.131.

The Examiner asserts that Kuffner discloses various elements of claims 1-6, 8, 9, 11-14, 16-18, and 20-23.

As mentioned above, claims 2, 5, 9, 14, and 16 have been canceled.

The rule under 35 U.S.C. §102 is well settled that "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2D 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). MPEP §2131.

Kuffner discloses a MIMO system having at least redeployable receivers (102, 104, 106, FIG. 1). However, Kuffner does not appear to disclose anything about handing off communications with a plurality of MIMO receivers from a first station to a second station, as recited in each of Applicant's independent claims 1, 8, 13, and 20. Kuffner appears to disclose only selectively redeploying one particular unit from a first communications mode to a second communications mode.

For the above reasons, independent claims 1, 8, 13, and 20 should be found to be allowable over Kuffner, and Applicant respectfully requests that the rejection of claims 1, 8, 13, and 20 under 35 U.S.C. §102(e) as anticipated by Kuffner be withdrawn.

In addition, all of those claims that depend directly or indirectly from claims 1, 8, 13, and 20 are also asserted to be allowable for the reasons presented above.

Rejection of Claims 7, 10, and 19 under 35 U.S.C. §103(a) as Unpatentable over Kuffner in view of Tu

Claims 7, 10, and 19 were rejected under 35 U.S.C. §103(a) as being unpatentable over Kuffner in view of Tu (U.S. 6,735,442).

The Examiner asserts that the combined teachings of Kuffner and Tu teach the various elements of claims 7, 10, and 19. As mentioned above, claim 7 has been canceled.

Filing Date: December 2, 2003

Title: ROAMING APPARATUS, SYSTEMS, AND METHODS WITH A PLURALITY OF RECEIVERS COUPLED TO A FIRST FREQUENCY REFERENCE TO COMMUNICATE WITH A FIRST STATION AND SELECTIVELY COUPLING ONE RECEIVER TO A SECOND FREQUENCY REFERENCE TO COMMUNICATE WITH A SECOND STATION (as amended)

Kuffner was discussed above.

Tu discloses a system for detecting and controlling a standby mobile phone (see Abstract).

To establish a *prima facie* case of obviousness under 35 U.S.C. §103, the prior art reference (or references when combined) must teach or suggest every limitation of the claim. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA, 1974). MPEP §2143.

The asserted combination of Kuffner in view of Tu fails to teach or suggest all of the claim limitations present in independent claims 8 and 13, so a *prima facie* case of obviousness has not been established. As mentioned in Applicant's arguments concerning the rejection under 35 U.S.C. §102(e), Kuffner fails to disclose anything about handing off communications with a plurality of MIMO receivers from a first station to a second station, as recited in each of Applicant's independent claims 8 and 13. Nor does Tu provide the missing limitation.

For the above reasons, claims 8 and 13 should be found to be allowable over any combination of Kuffner and Tu, and Applicant respectfully requests that the 35 U.S.C. §103(a) rejection of claims 10 and 19, which depend from claims 8 and 13, respectively, as being unpatentable over Kuffner in view of Tu should be withdrawn.

Rejection of Claim 15 under 35 U.S.C. §103(a) as Unpatentable over Kuffner in view of Sugar

Claim 15 was rejected under 35 U.S.C. §103(a) as being unpatentable over Kuffner and further in view of Sugar (U.S. 6,728,517).

Kuffner was discussed above.

Sugar discloses a MIMO radio receiver. However, Sugar does not appear to disclose anything about handing off communications with a plurality of MIMO receivers from a first station to a second station, as recited in Applicant's independent claim 13.

The asserted combination of Kuffner in view of Sugar fails to teach or suggest all of the claim limitations present in independent claim 13, so a *prima facie* case of obviousness has not been established. As mentioned in Applicant's arguments concerning the rejection under 35 U.S.C. §102(e), Kuffner fails to disclose anything about handing off communications with a

Filing Date: December 2, 2003

Title: ROAMING APPARATUS, SYSTEMS, AND METHODS WITH A PLURALITY OF RECEIVERS COUPLED TO A FIRST FREQUENCY REFERENCE TO COMMUNICATE WITH A FIRST STATION AND SELECTIVELY COUPLING ONE RECEIVER

TO A SECOND FREQUENCY REFERENCE TO COMMUNICATE WITH A SECOND STATION (as amended)

plurality of MIMO receivers from a first station to a second station, as recited in Applicant's independent claim 13. Nor does Sugar provide the missing limitation.

For the above reasons, claim 13 should be found to be allowable over any combination of Kuffner and Sugar, and Applicant respectfully requests that the rejection of claim 15 under 35 U.S.C. §103(a) as being unpatentable over Kuffner in view of Sugar should be withdrawn.

Additional Elements and Limitations

Applicant considers additional elements and limitations of the claims to further distinguish over the cited references, and Applicant reserves the right to present arguments to this effect at a later date.

Conclusion

Applicant respectfully submits that claims 1, 3, 4, 6, 8, 10-13, 15, and 17-23 are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney, Ann M. McCrackin (located in Minneapolis, Minnesota) at (612) 349-9592 or Applicant's below-signed attorney (located in Phoenix, Arizona) to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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